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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/517,673	07/11/2005	Matthias Muth	DE02 0143 US	1887

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EXAMINER

RAHMAN, FAHMIDA

ART UNIT	PAPER NUMBER
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2116

DATE MAILED: 11/28/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/517,673	Applicant(s) MUTH, MATTHIAS	
	Examiner Fahmida Rahman	Art Unit 2116	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 08 September 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 2-7, 16 and 17 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 2-7, 16 and 17 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 08 September 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. This final action is in response to communications filed on 9/8/06.
2. Claims 2-7 have been amended, claims 1, 8-15 have been canceled and claims 16-17 have been added. Thus, claims 2-7, 16-17 are pending.

Information Disclosure Statement

The information disclosure statement filed on 12/07/2004 fails to comply with 37 CFR 1.98(a)(2), which requires a legible copy of each cited foreign patent document; each non-patent literature publication or that portion which caused it to be listed; and all other information or that portion which caused it to be listed. The document ID 4226704 mentioned on IDS but is not in the record. Therefore, the IDS has been placed in the application file, but the information referred to therein has not been considered.

Priority

Acknowledgment is made of applicant's claim for foreign priority under 35 U.S.C. 119(a)-(d). The certified copy filed on 10/30/2001 has been received.

Should applicant desire to obtain the benefit of foreign priority under 35 U.S.C. 119(a)-(d) prior to declaration of an interference, a translation of the foreign application should be submitted under 37 CFR 1.55 in reply to this action.

Claim Objections

3. Claim 3 is objected to because of the following informalities: claim 3 depends on claim 1 that is canceled. For the rest of the action, it is assumed that claim 3 depends on claim 2.

Appropriate correction is required.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. Claims 17, 2-3 are rejected under 35 U.S.C. 102(e) as being anticipated by Heinrich et al (US Patent 6470393).

For claim 17, Heinrich et al teach the following limitations:

A communication method (abstract) comprising:

A bus transceiver (lines 10-12 of column 1) detecting bus activity (line 55 of column 2); the bus transceiver in response to the bus activity controlling a power supply

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circuit to supply power (lines 55-60 of column 2 mention that interfaces of the nodes can be held in low power mode and are set active when activating demand is transmitted via bus. Thus, the interfaces are activated, which requires high power state. Therefore, in response to bus activity, a power supply circuit from 15 is controlled such that interfaces can be activated; lines 17-19 of column 3) **to a protocol controller ("IF"** in Fig 2 comprises address filter AF and associated circuitry to generate wakeup signal W, which is the protocol controller); **and the bus transceiver, in response to a signal (W of Fig 3) from the protocol controller, controlling the power supply circuit (connection from 15 to IF and MC) to supply power (lines 27-28 of column 5) to an application controller (Microcontroller "MC" in Fig 2; lines 45-46 of column 6) when the bus activity is directed to the application controller as determined by the protocol controller** (lines 7-11 of column 3 mention that microcontroller can examine correctness of address identification once more after waking up. Thus, bus activity is directed to MC as determined by IF).

For claim 2, **the protocol controller unit (circuitry to generate W in IF of Fig 2) is addressed by the incoming message (lines 50-55 of column 1), in that the incoming message is compared with at least one reference message that is associated with the application (lines 43-50 of column 2) and is stored in the protocol controller unit (lines 7-11 of column 3), and if there is a correspondence and match between the incoming message and the reference message (lines 50-60 of column 5), at least one acknowledgement goes (lines 45-46 of column 6) to the bus transceiver**

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unit (acknowledgment W is shared by IF) and the application controller is activated responsive to the transceiver (lines 61-66 of column 2; lines 45-46 of column 6).

For claim 3, MC is the application controller is only supplied with voltage if there is a match (lines 45-46 of column 6).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 16, 4-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Heinrich et al, in view of Hanf et al (US Patent 5892893).

For claim 16, Heinrich et al teach the following limitations:

A communication system (abstract) comprising:

a bus transceiver (lines 10-12 of column 1 mentions that each node is capable of constituting transmitter/receiver. Thus, part of "IF" in Fig 2 responsible for transmitting/receiving is the transceiver), **a protocol controller** (ASR, AF and MR in Fig 3 and circuitry of Fig 4) **coupled to the bus transceiver and an application controller** (MC of Fig 2) **coupled to the bus transceiver, the application controller being**

turned off during a low power mode (lines 25-35 of column 5); **a power supply circuit** (15 to IF and MC) **coupled to the bus transceiver; wherein the bus transceiver in response to detecting bus activity** (line 55 of column 2) **controls the power supply circuit to supply power** (lines 55-60 of column 2 mention that interfaces of the nodes can be held in low power mode and are set active when activating demand is transmitted via bus. Thus, the interfaces are activated, which requires high power state. Therefore, in response to bus activity, a power supply circuit from 15 is controlled such that interfaces can be activated; lines 17-19 of column 3) **to the protocol controller** ("IF" in Fig 2 comprises address filter AF and associated circuitry to generate wakeup signal W); **and the bus transceiver, in response to a signal** (W of Fig 3) **from the protocol controller, controlling the power supply circuit** (connection from 15 to IF and MC) **to supply power** (lines 27-28 of column 5) **to an application controller** (Microcontroller "MC" in Fig 2; lines 45-46 of column 6) **when the bus activity is directed to the application controller as determined by the protocol controller** (lines 7-11 of column 3 mention that microcontroller can examine correctness of address identification once more after waking up. Thus, bus activity is directed to MC as determined by IF).

Heinrich et al do not explicitly mention that protocol controller is turned off during a low power mode. However, Heinrich et al placed the IF in a low power mode (lines 52-55 of column 2) and the system is in a deactivated state until S/R of Fig 6 produces count

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(lines 60-63 of column 6), which depends on Rx to be received. Thus, the protocol controller is deactivated during low power mode.

Hanf et al teach a system comprising:

a bus transceiver (100, Fig 4), a protocol controller (22) coupled to the bus transceiver and an application controller (21) coupled to the bus transceiver, the application controller and protocol controller being turned off during a low power mode (lines 25-35 of column 2; lines 44-45 of column 15); a power supply circuit (20) coupled to the bus transceiver; wherein the bus transceiver in response to detecting bus activity (bus activity causes wake-up as mentioned in line 22 of column 10) controls the power supply circuit to supply power to the protocol controller; and the bus transceiver controlling the power supply circuit to supply power to an application controller when the bus activity is directed to the application controller as determined by the protocol controller (lines 25-35 of column 2; lines 23-31 of column 10).

It would have been obvious for one ordinary skill in the art at the time the invention was made to combine the teachings of Heinrich et al and Hanf et al. One ordinary skill in the art would have been motivated to turn the protocol controller off as it is one of the known way of conserving energy (lines 22-25 of column 1).

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For claim 4, note Fig 2 of Heinrich. User nodes comprise transceiver as each node is receiving and transmitting (lines 10-12 of column 1). Thus, transceiver, IF and MC are connected to data bus.

For claim 5, control logic is associated with transceiver to implement the activation of microcontroller of Heinrich.

For claim 6, "UR" in Fig 2 of Heinrich et al is the first voltage regulator connected to battery (15) and in communication with a transceiver unit ((lines 10-12 of column 1). The protocol controller unit (IF is fed from 15) is fed with voltage in the event of one incoming message (lines 40-46 of column 6) that occurs on serial data bus (13). However, Heinrich does not supply voltage to protocol controller through first regulator. Hanf teaches supply of voltage to protocol controller 22 (Fig 4) by voltage regulator 20 (lines 25-30 of column 2).

6. Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Heinrich et al, in view of Hanf et al (US Patent 5892893), further in view of Hanf et al (US Patent 6438462).

For claim 7, Heinrich et al teach the following limitations:

the voltage regulator "UR" is connected to battery unit 15 which is in communication with a transceiver unit (lines 10-12 of column 1) for supplying a application controller

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unit ("MC" in Fig 2), which is associated with one user ("DK" in Fig 1) for carrying out application (MC comprises data processing unit), in the event of a correspondence and match between at least one incoming message that occurs in serial bus and at least one reference message (lines 50-60 of column 5) stored in one protocol controller unit (lines 7-11 of column 3) and associated with the application (lines 43-50 of column 2).

Heinrich et al, in view of Hanf (US Patent 5892893) do not teach the two voltage regulators. Hanf et al (US Patent 6438462) teach second voltage regulator connected to battery unit (Fig 14; lines 15-45 of column 35).

It would have been obvious to one ordinary skill in the art at the time the invention was made to combine the teachings of Heinrich et al, Hanf et al and Hanf et al. One ordinary skill in the art would have been motivated to use two regulators, since that would provide the redundancy of the system.

Response to Arguments

Applicant's arguments filed on 9/8/2006 have been fully considered but they are not persuasive.

Applicant argues that Heinrich does not teach or suggest the separate supply of power to distinct controllers, a protocol controller and an application controller. Rather Heinrich

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teaches the use of specialized interface circuit that controls the application of power to a single microcontroller.

Examiner disagrees: Although Heinrich teaches the specialized interface that controls the application of power to a single microcontroller, Heinrich teaches the separate supply of power to distinct controllers. The interface comprises the protocol controller (part of interface that is responsible for address filtering), which is held in a low power mode and activated when an activating demand is placed on bus (lines 50-60 of column 2), and an application controller, which is energized only when activating address is recognized (lines 61-65 of column 2). Therefore, protocol controller and application controller, the two distinct controllers, are fed separately from 15.

Conclusion

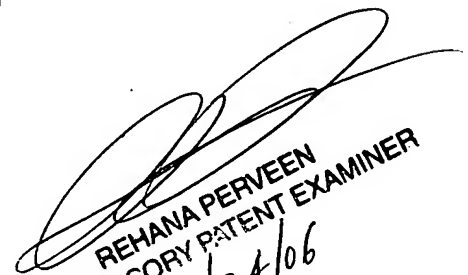
Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any

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extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Fahmida Rahman whose telephone number is 571-272-8159. The examiner can normally be reached on Monday through Friday 8:30 - 5:30. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rehana Perveen can be reached on 571-272-3676. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Fahmida Rahman
Examiner
Art Unit 2116


REHANA PERVEEN
SUPERVISORY PATENT EXAMINER
11/24/06